



North Carolina Department of Environment and Natural Resources

Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

May 29, 2009

Mr. Edward Mann, Public Works Director
Dare County
P.O. Box 1000
Manteo, NC 27954

RE: Design Hydrogeologic Report and Water Quality Monitoring Plan
Permit to Construct Application Construction and Demolition Debris
Landfill Cell No. 4 Dare County, North Carolina
Permit N. 28-03 Document ID No. 7630

Dear Mr. Mann:

I have reviewed the Design Hydrogeologic Report for the proposed Dare County C&D Landfill Cell No. 4 expansion. The Water Quality Monitoring Plan is amended to include two new groundwater monitoring wells associated with Cell No. 4. The two new groundwater monitoring wells to be installed are GW-16, located 125 feet north of the proposed Cell No. 4 area, and GW-17, located 125 feet south of the proposed Cell No. 4 area. The current monitoring system consists of one background well, GW-1, and compliance wells GW-2, GW-3, GW-4, GW-5, GW-6, GW-7, GW-8, GW-9, GW-10, GW-11, GW-12, GW-13, GW-14, AND GW-15. Existing monitoring wells GW-6 and GW-7 are located within the proposed Cell No. 4 footprint and will be abandoned prior to construction of the new cell. There are currently three surface water sampling locations at the site, SW-1, SW-2, and SW-3. Existing surface sampling locations will remain the same.

Both the Design Hydrogeologic Report and the Water Quality Monitoring Plan meet the criteria required in 15A NCAC 13B .0538(b), 15A NCAC 13B.0540(2), and 15A NCAC 13B .0544 and therefore, this portion of the Permit to Construct application is approved. An electronic pdf format copy of the approved Hydrogeologic Report and Water Quality Monitoring Plan (Tracking Document No. 6910) can be obtained on the Solid Waste Section's website located at: <http://wastenotnc.org/sw/swfacilitylist.asp>

Piezometers, groundwater monitoring wells, and borings, located in proposed Cell No. 4 may be abandoned now or after a Permit to Construct is issued by the Solid Waste Section. Please adhere to the following conditions:

Prior to construction of the phase or cell(s) within the phase, all piezometers, groundwater monitoring wells, and borings located within the footprint must be properly abandoned by overdrilling first (exception of non-cased borings) and sealed with grout in accordance with 15A NCAC 2C.0113(b)(1) entitled "Abandonment of Wells".

- a. In areas where soil is to be undercut, abandoned piezometers, monitoring wells, and borings must not be grouted to pre-grade land surface, but to the proposed base grade surface to prevent having to cut excess grout and potentially damaging the wells.
- b. Well abandonment records (GW-30 form) for each decommissioned piezometer, boring, and groundwater monitoring well must be certified by a Licensed Geologist in accordance with rule .1623(b)(2)(1) and submitted to the Solid Waste Section in accordance with 15A NCAC 02C.0114(b).

The new groundwater monitoring wells associated with Cell No. 4 must be sampled for the Appendix I constituent list, including Mercury, Chloride, Manganese, Sulfate, Iron, specific conductance, pH, temperature, Alkalinity, and Total Dissolved Solids, prior to the Solid Waste Section issuing the Permit to Operate. In addition to a hard copy report, provide the Solid Waste Section with an electronic copy of the groundwater and surface water monitoring data collected at the landfill facility. Guidelines for sampling groundwater and surface water, and submitting data electronically can be located at the Solid Waste Section's web site:

http://wastenotnc.org/swhome/technical_assistance.asp

Additional Geologic, Ground Water and Monitoring Requirements will be included in the Permit to Construct.

If you have any questions, please do not hesitate to call me at (919) 508-8506.

Sincerely,



Christine Ritter
Hydrogeologist
NC Solid Waste Section

cc: W. Michael Brinchek, P.E., Camp Dresser & McKee
Ming-Tai Chao, P.E., NC Solid Waste Section
Chuck Boyette, NC Solid Waste Section
Ed Mussler, NC Solid Waste Section